

DREDGE

10

2850-2700m

* All chemistry samples have XRD mineralogy done also.

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: pebble and cobble Location: Hass Seamount
Sample Id: D10-1 Weight: .3 kg Depth: 2850-2700
D10-2

Mn Crust Description

Surface Texture: Smooth

Mn Crust Thickness:

Min: _____ Max: _____ Ave: _____

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Where is it?
not in wheelbarrow

Comments and XRD Mineralogy:

Patience & Grace

Petina of Mn

ANALYSES

Subsample & Type	Analysis	Weight
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Substrate Description

Rock Type: ☐ Phosphorite pebble (1)
☐
☒ Rounded sandstone cobble (2)

Description:

Clean moderately well sorted quartz or feldsparitic sandstone w/ hemite grams

Described By:

Subsampled By:

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: 12x15x5 Location: Hass Seamount
Sample Id: D10-3 Weight: 1.5 kg Depth: 2850-2700

Mn Crust Description

Surface Texture: rough reddish brown w/ encrusting forams

Mn Crust Thickness:

Min: 25 Max: 52 Ave: 40

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.	2	6	4	massive red brown
2.	12	25	20	laminated black
3.	11	21	16	porous, fractured
4.				
5.				
6.				

Comments and XRD Mineralogy:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

ANALYSES

[illegible]

Substrate Description

Rock Type: NONE

Description:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Described By:

Subsampled By: *JS*

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: 10x14x5cm Location: Poss
Sample Id: D10-4 Weight: 1Kg Depth: 2850-2900 m

Mn Crust Description

Surface Texture: smooth, red-brown

Mn Crust Thickness:

Min: 4 Max: 24 Ave: 18

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

Mo is massive w/ thin
2 mm crust on top. Matrix
is composed of
phosphorite breccia? clasts in
crust.

Substrate Description

Rock Type: Phosphorite breccia. NO

Description:

Angular clasts ($3\text{mm}^2 - 1\text{mm}^2$)
+ Mn, Fe, Al, and other oxides
are cemented by chlorite
and MnO₂.

Sample Loc. Alt.



D10-4

ANALYSES

[illegible]

Described By: 48

Subsampled By: *LB*

c samples, biggest described

Location: Noss

Weight: 100

Depth: 2850 - 2700 m

Surface Texture: smooth on top
rough on bottom

Min: 10 Max: 20 Ave: 18 mm

Min	Max	Ave	Texture
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1.			
2.			
3.			
4.			
5.			
6.			

Crust on top side is massive
w/ occasional Poly blebs to 2mm.
Bottom crust is thicker
and layered. (< 3mm thick each)
Layers vary between
dense, massive & porous
(granular?)

Top of crust is red-brown
colored.

Rock Type: Phosphorite

Phosphorite with
abundant Mn concretions

Subsample & Type

Analysis

Weight

Described By:

Subsampled By:



SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: 12 x 10 x 4 cm Location: HOSS

Sample Id: D10-6 Weight: 800 gm Depth: 2950 - 2700 m

Mn Crust Description high-relief, banded;
Surface Texture: smooth

Surface Texture: in lumps

Mn Crust Thickness:
Min: 30 Max: 50 Ave: 40 mm

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

Fractured massive crust
surrounded by thin Mn layer.
Granular - Mn in
pockets on upper
sample surface (see
pic other side)

ANALYS.

[illegible]

Substrate Description

Rock Type: Old crust

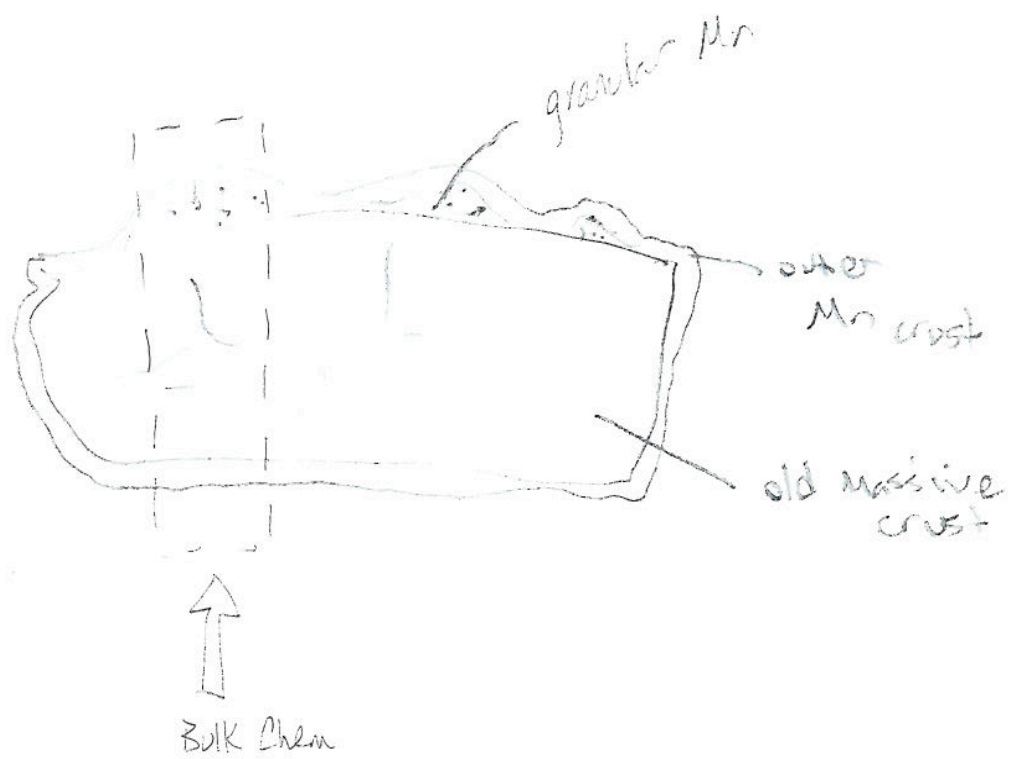
Description:

Described By: *LB*

Subsampled By: *LB*

(over)





SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: 19x14x3.5 Location: Hess Seamount
Sample Id: D10-7 Weight: .8 kg Depth: 2850-3200

Mn Crust Description

Surface Texture: Rough reddish brown

Mn Crust Thickness:

Min: 20 Max: 38 Ave: 25

Layers (Outer to Inner):

Min	Max	Ave	Texture
1. 2	5	3	Laminated reddish brown
2. 18	33	22	Black, massive + fractured
3.			
4.			
5.			
6.			



Comments and XRD Mineralogy:

Just above the quartzite
beds, showing a little
thin bed of quartzite
in lower part.

Crust fragment-small amount of substrate adhering to bottom□

- mm- sized phosphite grains in lower crust

ANALYSES

[illegible]

Substrate Description

Rock Type: _____

Description:

Described By:

Subsampled By: *4*

SAMPLE DESCRIPTION

Cruise Id: F7-87-SC Size: Various - 17 Hap Location: Hess Seamount
Sample Id: D10-8 Weight: _____ Depth: 2050-2200

Mn Crust Description

Surface Texture: Smooth

Mn Crust Thickness:

Min: 10 Max: 30 Ave: 15

Layers (Outer to Inner):

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				

Comments and XRD Mineralogy:

Some species reddish brown, some
are ^{very} dark, some are black.

ANALYSES

Some surfaces reddish brown. some w/ encrusting forams, others black-

Subsample & Type	Analysis	Weight
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Substrate Description

Rock Type: NONE -
 — Some hyaloclastite on 2 fragments

Description:

Described By:

Subsampled By: